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Agricultural Transportation Challenges for the 21st Century

NAFTA-Related Transportation and Infrastructure Needs

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Issue

The implementation of the North American Free Trade Agreement (NAFTA) in January 1994 marked the beginning of a new phase in the economic relations between the United States, Mexico, and Canada. In 1993, total U.S. agricultural trade with Canada and Mexico amounted to about \$16 billion dollars, but by 3 years after the trade pact's implementation, NAFTA-related agricultural trade had risen to over \$22 billion. NAFTA-related agricultural trade currently accounts for about one-quarter of total U.S. agricultural trade. Mexico has been second only to Japan as a market for U.S. bulk agricultural products over the past 5 years.

As trade among the three countries grows, the demand for cross-border movement of people and cargo is also increasing. But, even though import quotas and tariffs are gradually being removed by NAFTA, evidence is mounting that transportation and infrastructure constraints may be limiting additional trade opportunities. Such constraints are most likely to become evident in U.S. trade with Mexico because of the underdevelopment of the Mexican transport system relative to that of Canada and the United States.

Background

Mexico is a unique market for all U.S. agricultural exporters, but its differences from other markets are probably most pronounced for U.S. grain exporters. The common overland border with Mexico allows U.S. grain exporters to use a variety of transportation options. Agricultural trade with Mexico can be served by truck, rail, maritime, and by combination barge/truck and barge/rail. Shipping via the overland modes to Mexico allows for less handling between points of loading and unloading, more specialized purchasing, less variation in shipment quality due to smaller lot sizes, lower inventory costs from more frequent purchasing, and access to less costly sources of supply in the United States. In addition, the ability to export relatively small volumes of grain by truck and rail to Mexico allows a broader section of the U.S. grain industry to participate in the Mexican market than is able to access other U.S. export markets. Finally, Mexico is also unique in world grain markets in that its primary use of corn is for human consumption rather than livestock feed. This raises the importance of quality and phytosanitary factors in Mexican imports of these commodities.

Serious congestion and delays have existed at U.S. land border crossings with Mexico for many years. The reasons for the congestion and delay are many and complex. Several years ago, an interagency task force summarized the major causes of congestion and delays as “inadequate or dated transportation facilities; inadequate staffing; incomplete, inaccurate and delayed paperwork; inefficient inspection procedures; the lack of coordinated infrastructure planning; and traffic peaking at particular times of the day.”

The presence of several Government agencies on both sides of the border complicates trade with Mexico. The sovereign duties of both nations require the enforcement of safety, health, customs, and immigration laws and regulations. How these agencies administer their responsibilities can have collateral impacts on the efficiency by which trade flows in both directions across the border.

According to the interagency task force, the three major types of improvements which could alleviate border congestion and delay are: (1) operational improvements, as with better coordination of hours of operation, staffing levels, paperwork processes, and the use of automated systems and technologies; (2) infrastructure improvements, including large-scale projects such as the building of more bridges, access roads and rail lines to cross the border, and small-scale projects, such as the building of more commercial inspection facilities, and (3) institutional and regulatory/legislative improvements, such as changes in laws, and regulations that might facilitate the movement of traffic, as well as the implementation of user fees, tolls, and other financial incentives to effect changes in the use of border resources.

Over 80 percent of the value of U.S. exports and a great share of the value of U.S. agricultural exports to Mexico move by truck. Highway congestion at Laredo, Texas, is so great that truck traffic backs up as far as 4 miles through the center of town to cross the border. Border inefficiencies and congestion raise the costs of transportation to U.S. agricultural exporters shipping by truck to Mexico.

However, rail accounts for most of the overland movements of U.S. grain into Mexico and rail congestion problems can severely affect grain shipments through outright railroad embargoes or a metering of railroad service to the border. Some of the border rail difficulties are due to the limited rail infrastructure at the border. The Laredo railroad bridge, for instance, is a one-track structure that was built four decades ago and which is used for both northbound and southbound rail traffic of a number of railroads. The railroad bridge into Mexico at Brownsville, Texas, is a single-lane bridge that must be shared with vehicular traffic. Any unexpected delays in car throughput at these border points can quickly back up southbound rail traffic in the United States and result in severe operating problems for U.S. railroads. If crossing delays become significant, U.S. railroads have sometimes been forced to embargo shipments into Mexico through specific border crossings, as Union Pacific/Southern Pacific (UP/SP) railroad did on March 24, 1998. According to UP/SP officials, the embargo was necessary to alleviate a backlog of 5,500 rail cars destined for Laredo which had arisen because of inefficient Mexican Department of Agriculture inspection procedures on southbound grain trains entering Mexico.

However, progress is being made in increasing the efficiency of cross-border rail interchange. Total per day railcar throughput through major interchange points such as Laredo is easily twice

what is was 10 years ago. At a joint U.S./Mexico cabinet-level meeting held as part of the 1997 Binational Commission meeting, the Mexican Department of Agriculture (SAGAR) agreed to work closely with the USDA to address grain inspection problems at the border. This led to U.S.-Mexico meetings at the border in 1997 to identify further issues in the rail movements of U.S. grain into Mexico, and an agreement by SAGAR to implement 24-hour-a-day grain inspection at the border in January 1998. More recently, USDA intervened with the Mexican Department of Agriculture to change some SAGAR inspection procedures at the border and to get the UP/SP embargo lifted.

The efficiency of the U.S.-Mexico rail system will likely be severely taxed later in 1998 due to expected large-scale imports of grains and oilseeds by Mexico. Total 1998 imports were most recently estimated by SAGAR at over 13 million metric tons (MMT), which would be an all-time record for Mexican grain imports, and almost 50 percent greater than the 1997 imports of 8.7 MMT.

Implications

Forecasts that transportation problems will eventually affect the rate of growth of U.S. food and agricultural exports to Mexico, and that distribution bottlenecks and high transportation costs will curtail U.S. agricultural export opportunities to Mexico, may be coming true. Although the adequacy of the transportation services and infrastructure between the U.S. and Mexico is a long-term agricultural transportation issue, the capacity of existing rail linkages between the two countries is expected to be stressed by large-scale Mexican grain imports in 1998. The levels of agricultural trade between the U.S. and Mexico which will be achieved in the long-term will undoubtedly be determined by how these and other transportation and infrastructure constraints are addressed by the public and private sectors of both countries.

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